

BEST AVAILABLE COPYIn the claims:

Following is a complete set of claims as amended with this Response.

1. (Currently Amended) A method comprising:

receiving information regarding two or more transactions at a transaction coordinator of a client, the two or more transactions representing discrete transactions for two or more reservations resource items, wherein the two or more reservations resource items are from different suppliers service providers;

sending from the transaction coordinator tentative hold requests for the two or more reservations resource items to a transaction manager of a server causing tentative hold records to be created and associated with each of the discrete transactions; and

after successfully gaining each of the tentative holds on each of the reservations resource items and receiving confirmation from the transaction manager regarding each of the transactions, the transaction coordinator directing the commitment of the transactions.

2. (Previously Presented) The method of claim 1, wherein said directing the commitment of the transactions comprises initiating conventional Two-Phase Commit (2PC) prepare and commit processing for the transactions.

3. (Previously Presented) The method of claim 1, further comprising receiving a notification indicating that the transactions are no longer possible.

4. (Currently Amended) The method of claim 1, wherein the tentative hold records are stored at an intermediate server that is not within the suppliers service providers offering the reservations resource items.

5. (Cancelled)

6. (Currently Amended) A method comprising:

receiving information regarding two or more transactions at a transaction coordinator of a client from an originating application, the two or more transactions involving two or more reservations resource items, wherein the two or more reservations resource items are from different suppliers service providers; and

the transaction coordinator initiating a tentative-hold processing stage by requesting that a resource manager of a server and participating in the two or more transactions by tentatively holding the reservations resource items involved in the transactions to store and storing call back information identifying a return communication path to the originating application.

7. (Currently Amended) The method of claim 6, wherein the remote server is associated with different suppliers service providers.

8. (Currently Amended) The method of claim 6, further comprising:

receiving a commitment corresponding to the transactions from the originating application; and

responsive to the commitment, initiating a two-phase commit processing stage by the transaction coordinator directing the resource manager to reserve the reservations resource items during which the resource manager reserve the reservations resource items and notifying, via corresponding call back information, other applications having tentative holds on the same reservations resource items that their respective tentative holds have been suspended.

9. (Currently Amended) A method comprising:

receiving at a first transaction coordinator of a first client, a first request associated with a first transaction, the first request soliciting a non-mutually exclusive

hold on a reservation resource item, the reservation resource item being part of the first transaction, wherein the non-mutually exclusive hold is a hold that allows multiple clients to simultaneously maintain a hold on the reservation resource item;

maintaining a first non-mutually exclusive hold on the reservation resource item until an exclusive lock is obtained on the reservation resource item or for a predetermined amount of time, whichever occurs first, by the first transaction coordinator causing a first tentative hold record to be created and associated with the reservation resource item and initiating a first timeout associated with the first tentative hold record;

receiving at second transaction coordinator of a second client, a second request associated with a second transaction, the second request soliciting a non-mutually exclusive hold on the reservation resource item, the reservation resource item being part of the second transaction;

maintaining a second non-mutually exclusive hold on the reservation resource item until an exclusive lock is obtained on the reservation resource item or for a predetermined amount of time, whichever occurs first, by the second transaction coordinator causing a second tentative hold record to be created and associated with the reservation resource item and initiating a second timeout associated with the second tentative hold record;

receiving at the first transaction coordinator, from the first client, a third request associated with the first transaction, the third request asking that completion of the first transaction commence; and

responsive to the third request, the first transaction coordinator suspending the second non-mutually exclusive hold and granting an exclusive lock on the reservation resource item to the first transaction.

10. (Currently Amended) The method of claim 9, wherein the first non-mutually exclusive hold allows the reservation resource item to be held for a short duration of time.
11. (Previously Presented) The method of claim 9, further comprising:
storing call back information associated with an application originating the second transaction; and
notifying the application regarding the suspension of the second non-mutually exclusive hold.
12. (Previously Presented) The method of claim 9, further comprising in response to a timeout on the exclusive lock, recommencing the second non-mutually exclusive hold on behalf of the second transaction.
13. (Currently Amended) A distributed transaction processing system comprising:
a distributed transaction coordinator executing on a first client system, the distributed transaction coordinator to place holds on each of a plurality of reservations resource items associated with an atomic distributed transaction that spans a plurality of network resources and to commence completion of the atomic distributed transaction by obtaining exclusive locks on each of the plurality of reservations resource items after the holds have been successfully granted on each of the plurality of reservations resource items, wherein the plurality of reservations resource items are from different suppliers service providers; and
a distributed transaction manager executing on a server system communicatively coupled with a plurality of client systems including the first client system, the distributed transaction manager to maintain a plurality of holds for each of a plurality of reservations.

~~resource-items~~ associated with the server system and to grant only one exclusive lock per single reservation resource item of the plurality of reservations ~~resource-items~~ at a given time in response to requests from distributed transaction coordinators.

14. (Original) The distributed transaction processing system of claim 13, wherein the distributed transaction coordinator includes a Two-Phase Commit transaction coordinator.

15. (Original) The distributed transaction processing system of claim 13, further comprising one or more Two-Phase Commit resource managers communicatively coupled with the distributed transaction manager.

16. (Currently Amended) A machine-readable medium having stored thereon data representing sequences of instructions, the sequences of instructions which, when executed by a processor, cause the processor to:

receive information regarding an atomic distributed transaction, the atomic distributed transaction representing an aggregation of a plurality of discrete transactions for individual reservations ~~resource-items~~ that span a plurality of network resources, and are from different suppliers ~~service providers~~;

place a tentative hold on each of the plurality of individual reservations ~~resource-items~~ by causing a tentative hold record to be created and associated with each of the plurality of discrete transactions; and

after successfully gaining the tentative holds on each of the plurality of individual reservations ~~resource-items~~ and receiving a confirmation regarding the atomic distributed transaction, attempt to direct the completion of the atomic distributed transaction.

17. (Previously Presented) The machine-readable medium of claim 16, wherein said attempt to direct the completion of the atomic distributed transaction comprises initiating Two-Phase Commit (2PC) prepare and commit processing for each of the plurality of discrete transactions.

18. (Currently Amended) The machine-readable medium of claim 16, wherein one or more of the tentative hold records are stored at an intermediate server that is not within the suppliers service providers offering the reservations resource items.

19. (Currently Amended) The machine-readable medium of claim 16, wherein the plurality of network resources comprise database systems of a plurality of different suppliers service providers.

20. (Currently Amended) A machine-readable medium having stored thereon data representing sequences of instructions, the sequences of instructions which, when executed by a processor, cause the processor to:

receive, from a first client, a first request associated with a first discrete transaction, the first request soliciting a non-mutually exclusive hold on a reservation resource item, the reservation resource item being part of a first atomic distributed transaction that spans a plurality of network resources, wherein the non-mutually exclusive hold is a hold that allows multiple clients to simultaneously maintain a hold on the reservation resource item;

maintain a first non-mutually exclusive hold on the reservation resource item until an exclusive lock is obtained on the reservation resource item or for a predetermined amount of time, whichever occurs first, by causing a first tentative hold record to be created and associated with the reservation resource item and initiating a first timeout associated with the first tentative hold record;

receive, from a second client, a second request associated with a second discrete transaction, the second request soliciting a non-mutually exclusive hold on the reservation resource item, the reservation resource item being part of a second atomic distributed transaction;

maintain a second non-mutually exclusive hold on the reservation resource item until an exclusive lock is obtained on the reservation resource item or for a predetermined amount of time, whichever occurs first, by causing a second tentative hold record to be created and associated with the reservation resource item and initiating a second timeout associated with the second tentative hold record;

receive, from the first client, a third request associated with the first discrete transaction, the third request asking that completion of the first discrete transaction commence; and

responsive to the third request, suspend the second non-mutually exclusive from hold and grant an exclusive lock on the reservation resource item to the first discrete transaction.

21. (Original) The machine-readable medium of claim 20, wherein at least two network resources of the plurality of network resources are associated with different enterprises.

22. (Original) The machine-readable medium of claim 20, wherein the sequences of instructions further include instructions which, when executed by the processor, cause the processor to:

store call back information associated with an application originating the second discrete transaction; and

notify the application regarding the suspension of the second non-mutually exclusive hold.

23. (Previously Presented) The machine-readable medium of claim 20, wherein the sequences of instructions further include instructions which, when executed by the processor, cause the processor to recommence the second non-mutually exclusive hold on behalf of the second discrete transaction in response to a timeout on the exclusive lock.

24. (Currently Amended) The method of claim 6, wherein the non-mutually exclusive manner of the tentative hold allows the reservation resource item to be held for a short duration of time.

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